

Whatman™ Klari-Flex™

Bottle Top Filtration System with Drop-Connect Technology

Bringing a new level of productivity to sterile vacuum filtration of aqueous fluids such as cell-tissue culture media, biological fluids and buffers.



Klari-Flex – for a faster, easier workflow

Attach the vacuum hose to the pedestal base just once – and filter all your samples in succession. Or use the cradle ring to achieve the same permanent vacuum hose connection with a typical laboratory stand.

1

Connect the vacuum hose to the pedestal base.

2

Insert the two-part filtration/bottle unit on the stand.

3

Complete filtration.

4

Remove bottle, affix cap and store.

5

Begin filtering the next sample.



Alternate method using the cradle ring and laboratory stand.



Use with the adapter for conventional bottle top filtration.



Simply revolutionary

Introducing the Whatman Klari-Flex bottle top filtration system – a revolutionary innovation from GE Healthcare to streamline sterile vacuum filtration of fluids such as cell-tissue culture media.

Designed specifically to improve productivity, the Klari-Flex system includes a stable, low-profile pedestal base with a permanent vacuum hose connection. This feature eliminates a time-consuming and inconvenient step in your process – connecting and disconnecting the vacuum to each filter unit. With Klari-Flex, connect the vacuum once to the base. Each time a new filtration unit is placed on the base, Drop-Connect Technology ensures that the vacuum connection is automatic.

As options, the Klari-Flex system includes a cradle ring, so you can achieve the same permanent vacuum hose connection using a typical laboratory stand. Or simply use it with the adapter for conventional bottle top filtration.

With Drop-Connect Technology, the filtration unit can be quickly and accurately placed into the base with just one hand. Removing the unit is just as easy.

From the novel vacuum connection to the weighted pedestal base to the tip-resistant bottle, the ergonomic design makes the Klari-Flex system easy-to-use, maximizes throughput and minimizes the risk of spills and contamination.

Drop-Connect
Technology



Applications

The Klari-Flex system can be used for:

- Filter sterilization of aqueous solutions such as cell culture media and biological fluids.
- Filtration of buffers prior to chromatography.



Use the flexible Klari-Flex system in three ways – with the pedestal stand, with the cradle ring and your lab stand, or with the adapter for conventional bottle top filtration.

Simply extraordinary

The Klari-Flex system is designed to withstand harsh lab environments and deliver benefits at each step of your process.

Improves productivity

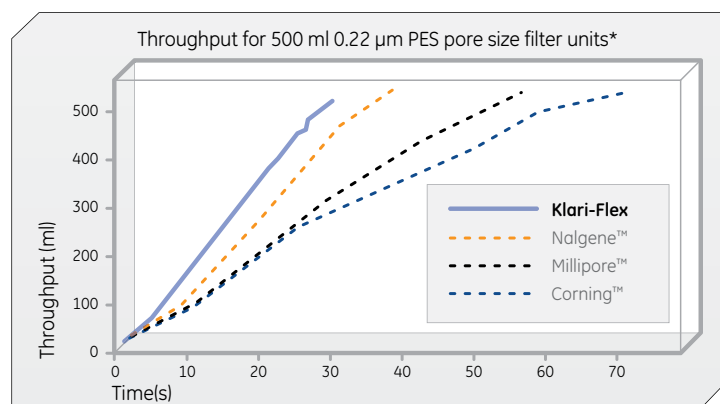
- Permanent vacuum hose connection increases throughput
- Fast connection of filter to base decreases setup time
- Large low protein binding, 90 mm filter membrane (500 and 1000 ml units) increases throughput

Easy to use

- Front-facing funnel graduation marks enhance readability
- Drop-Connect Technology requires just one hand to connect unit to base
- Large bottle cap accommodates labeling information and acts as a handle
- Vacuum control is accessible and user friendly
- Smooth, contoured surfaces make cleaning easy

Minimizes risk of spills and contamination

- Weighted pedestal base is built for stability
- Drop-Connect Technology enables fail-safe unit placement in base
- Ergonomically designed bottle and bottle cap improve handling
- Low-profile funnel/bottle unit with wide base is tip-resistant
- Robust, crack-resistant bottle withstands cap tightening



In laboratory tests performed at GE Healthcare in the U.S., the Klari-Flex system produced consistently higher liquid throughputs than the compared filtration systems.

Fig. 1. Comparison of liquid throughput of 10% FBS supplemented DMEM solution using the Whatman Klari-Flex assembly and those of three competitors. Data represent the average of five units of each kind tested with the same batch of solution.

*Nalgene PES Filter Unit, 500 ml 90 mm diameter membrane
Millipore Stericup™ 0.22, GP Express Plus membrane
Corning 500 ml Filter System 0.22 μ m Polyethersulfone (PES)

Data is held at GE Healthcare (U.S.). For more detail, visit www.gelifesciences.com/klari-flex

Product Specifications

| | |
|--|---|
| Funnel/Bottle capacity | 250 ml / 250 ml 500 ml / 500 ml 1000 ml / 1000 ml |
| Membrane | Polyethersulfone |
| Membrane pore size | 0.22 or 0.45 µm |
| Membrane diameter | 90 mm for 500 ml and 1000 ml funnel 66 mm for 250 ml funnel |
| Bottle threads | 45 mm |
| Adapter and stand hose barb | 6-12 mm (1/4"-1/2") |
| Sterilization method | Gamma Irradiation Certified Sterile |
| Material of construction | Funnel, Bottle, Lid – Polystyrene Bottle Cap, Vacuum Adapter – Polypropylene Pedestal Stand – Powder Coated Aluminum Cradle Ring – Stainless Steel Vacuum Port O-ring – Silicon |
| Temperature limit | 50° C (121° F) |
| Pressure limit | 20 in Hg, 51 cm Hg; 15 in Hg, 38 cm Hg recommended |
| Compatible with certain models of glass bottles designed for vacuum filtration application | |
| Single use only, do not autoclave | |

Whatman catalog ordering information – Whatman Klari-Flex bottle top filtration system

Ordering information

| Catalog number | Pore size & membrane | Sterile | Description |
|----------------|----------------------|---------|------------------------------------|
| 6514-2502 | 0.22 µm PES | Yes | 250 ml funnel and bottle, 12/pack |
| 6514-5002 | 0.22 µm PES | Yes | 500 ml funnel and bottle, 12/pack |
| 6514-1002 | 0.22 µm PES | Yes | 1000 ml funnel and bottle, 12/pack |
| 6514-2504 | 0.45 µm PES | Yes | 250 ml funnel and bottle, 12/pack |
| 6514-5004 | 0.45 µm PES | Yes | 500 ml funnel and bottle, 12/pack |
| 6514-1004 | 0.45 µm PES | Yes | 1000 ml funnel and bottle, 12 pack |
| 6515-2502 | 0.22 µm PES | Yes | 250 ml funnel, 12/pack |
| 6515-5002 | 0.22 µm PES | Yes | 500 ml funnel, 12/pack |
| 6515-1002 | 0.22 µm PES | Yes | 1000 ml funnel, 12/pack |
| 6515-2504 | 0.45 µm PES | Yes | 250 ml funnel, 12/pack |
| 6515-5004 | 0.45 µm PES | Yes | 500 ml funnel, 12/pack |
| 6515-1004 | 0.45 µm PES | Yes | 1000 ml funnel, 12/pack |
| 6516-2500 | N/A | Yes | 250 ml bottle, 24/pack |
| 6516-5000 | N/A | Yes | 500 ml bottle, 24/pack |
| 6516-1000 | N/A | Yes | 1000 ml bottle, 24/pack |
| 6517-0001 | N/A | N/A | Cradle ring, 1/pack |
| 6517-0002 | N/A | N/A | Pedestal stand, 1/pack |

For local office contact information, visit
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Whatman catalog ordering information – Pre-filters

Choose glass microfiber discs that fit on top of the Klari-Flex filter tops for hard to filter fluids.

Ordering information

| Catalog number | Grade & pore rating | Description |
|----------------|---------------------|---|
| 1841-090 | GMF 150 1 µm | 90 mm disc for 500 and 1000 ml units, 20/pack |
| 1841-066 | GMF 150 1 µm | 66 mm disc for 250 ml unit, 20/pack |

Whatman catalog ordering information – Vacu-Guard™ vacuum protection filters

Easy-to-use in-line filter discs protect vacuum pump systems from aqueous aerosols, infectious material and gaseous contaminants.

Ordering information

| Catalog number | Membrane | Description |
|----------------|-----------|------------------------------|
| 6722-5000 | 0.45 PTFE | Housing: 50 mm disc, 10/pack |
| 6722-5001 | 0.45 PTFE | Housing: 50 mm disc, 10/pack |

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